

## State Energy Conservation Office (SECO) Municipally Owned Utility (MOU) or Electric Cooperative (Co-op) SB-924 Energy Efficiency Report Data Entry Form

MOU or Co-op:	Tri-Count	ty Electric Cooperative, In	nc		
County:	Parker	<u> </u>			2
Contact:	David Kli	ment			0
Contact Title: <sup>-</sup>	Manager	of Member Services			
Address:	600 N W	Parkway			5
City:	Azle TX				5
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Fax:	817-444-	3542			
E-mail Address:	Dkliment	@TCECTEXAS.COM			
	quired by	reby reporting on energ SB-924, PURA Sections		No	
Co-op has related Instructions: Provide a business calendar year. Examples utility facilities. Supplemental control of the con	ed to ene orief descrip s may include nental infor	Please tell us about th rgy efficiency:  tion of your MOU or Co-op's of the information about energy efformation may be provided at Co-op might have. Please use	energy efficiency ficiency for MOU your option on	goals for the polor costor any long-term	revious ners or energy
See attached docui	mentation	*:			
<u>Instructions</u> : Input inforr please list energy effic	nation as a iency progr	ergy Efficiency Progran applicable; add fields as nece ams and provide applicable erformance metric (for exampl	ssary. For the period estimated achie	eved savings -	energy
Energy Efficiency P	ogram	Estimated Energy Savings or	Estimated Demand Savings or	Other Program Performance Metric	
See attached documen	tation.				
	Totals				i

## 4) Program Materials / Additional Information

<u>Instructions:</u> Public information about your energy efficiency programs (brochures, website information, etc.) may be attached and provided with this form.

5) Please submit this form to SECO at: <u>SB924.Reporting@cpa.state.tx.us</u>

## Brazos Electric Power Cooperative, Inc. Energy Efficiency Rebate Program 2011-2012

## Purpose

Brazos Electric's Energy Efficiency Rebate Program ("EERP") is designed to encourage member cooperatives ("Members") to promote cost effective energy efficiency measures that will reduce wholesale power costs and support a Member's individual energy innovation goals. Brazos Electric's EERP is a program to reward energy efficient practices by paying incentive rebates to participating Members when retail members install more efficient lighting, HVAC, insulation and other various qualifying equipment that reduces energy consumption.

## Introduction

After reviewing an independent consultant's recommendation of energy efficiency programs in January 2009, the Members reached consensus on trying to develop an EERP with an assortment of energy efficiency measures and programs. In June 2009, the Brazos Electric Board of Directors approved implementation of the EERP with a September 2009 start date.

Some of the identified benefits and program assumptions of the EERP are as follows:

- 1. Provide the Members with cost effective energy efficiency programs for use by their respective retail members.
- 2. Brazos Electric to document the program design, develop forms, and provide education of available programs for Members.
- 3. A Member may select from the approved list of cost effective energy efficiency programs included in the EERP that the Member wants to offer and market to its retail members.
- 4. Currently include only those programs that have a positive benefit/cost ratio as determined by independent consultant's analysis of specific measures included in its study.
- 5. Limit the administrative costs of the programs and maximize the incentives to the end-use retail member that participates in the energy efficiency program.
- 6. Members able to choose eligible programs they prefer to include in their respective member services program.
- 7. A rebate program is easier to administer at the G&T level resulting in lower costs with a larger percentage of funds available for incentive rebates.
- 8. Centralized measurement, verification and incentive rebate processing.
- 9. Potential for economies of scale purchasing.
- 10. Incentive rebates and administrative costs limited to the allocated EERP annual budget for each Member based on the Member's previous year's MWh sales multiplied by the applicable surcharge rate.

<sup>&</sup>lt;sup>1</sup> NRECA's adoption of resolution 09-f-1, Wise and Innovative Energy Use, details energy innovation as a four-legged platform consisting of conservation, energy efficiency, demand response and distributed resources.

## **Eligible Energy Efficiency Programs**

Below is a list of the energy efficiency measures that have been approved for the Brazos Electric EERP for 2011 and 2012. The incentive levels developed by the independent consultant in its Energy Efficiency Study were based on a 30% reimbursement of the incremental cost of the energy efficient measure.

## COMPACT FLUORESCENT LIGHTING ("CFL")

<u>Compact Fluorescent Lighting</u>: Residential fluorescent bulbs and fixtures present a significant opportunity for energy and maintenance savings. On a per lamp basis, compact fluorescent lamps are generally 75 percent more efficient than incandescent bulbs and last up to ten times longer. In addition, CFL bulbs produce about 75 percent less heat, so they are safer to operate and can cut energy costs associated with home cooling. CFL bulbs vary in size and shape. Their appearance can be a spiral-shaped fluorescent tube or they can appear as a standard shape, such as the R-30 floodlight used in recessed cans. Dimmable CFL bulbs and 3-way CFL bulbs are also eligible.

### HOME ENERGY AUDIT

All incentive rebates for the Home Energy Audit (excluding the HVAC Tune-up) will only apply for those homes that have <u>residential electric water heating only</u>. The eligible energy efficiency measures are: Low Flow Showerhead, Low Flow Faucet Aerators, Water Heater Blanket and Pipe Wrap. <u>While Brazos Electric has no specific information or knowledge on this issue, some have raised a concern that some manufacturers may consider the use of a water heater blanket to void the warranty for the hot water heater.</u>

<u>Low Flow Showerheads</u>: An existing showerhead is replaced with a new unit that has a low-flow rate (less than 2.0 gallons/minute). Significant savings in hot water use can be achieved by installing low-flow showerheads and faucets. The single best action is to replace old showerheads as showers use 37% of the hot water in typical U.S. homes. Members should procure and install the replacement showerheads in the home. Retired showerheads should be removed and retained by the Member.

<u>Low Flow Faucet Aerators</u>: An existing faucet is replaced with a new unit that has a low-flow rate (less than 1.5 gallons/minute in bathrooms and less than 2.2 gallons/minute in kitchens). Members should procure and install the replacement aerators in the home.

<u>Water Heater Blanket</u>: Water heater blankets are designed to wrap around an existing water heater tank to improve insulation, prevent heat loss, and save energy. Installing an insulating blanket can reduce standby loss (heat lost through the walls of the tank) by as much as 25-40%. Members should procure and install the water heater blanket.

<u>Pipe Wrap</u>: Insulating hot water pipes will reduce losses as the hot water is flowing to the faucet and, more importantly, it will reduce standby losses when the tap is turned off and then back on within an hour or so. Pipe wrap will conserve energy and water that would normally be lost waiting for the hot water to reach the tap. Energy loss still occurs after pipe wrap has been installed, though to a smaller degree than the losses observed in non-insulated pipes. Members should procure and install the pipe wrap on all exposed and accessible hot water lines.

<u>HVAC Tune-Up</u>: HVAC tune-up and maintenance helps to keep heat pump and central air conditioning units running at top efficiency, prevent equipment failures, and extend the life of the equipment. A tune-up by a service professional can improve unit efficiency by as much as 20%. An annual HVAC tune up includes: checking and correcting the unit's refrigerant pressure and tubing, checking and adjusting belt tension, cleaning and lubricating the indoor blower unit, replacing filters, cleaning inside the "A" coil, and checking the thermostat, wiring, and other electric parts. A receipt from a qualified contractor stating that the above work was completed should be provided to the Member.

## **ENERGY STAR RATED NEW HOME CONSTRUCTION**

<u>Energy Efficient New Homes Construction</u> (Energy Star Home Rating - 15% more efficient): New homes are designed to be built to Energy Star standards: at least 15 percent more energy efficient than those built to the **2004** International Residential Code ("IRC").

Savings are based on heating, cooling, and hot water energy use and are typically achieved through a combination of the following: high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems, high efficiency water heating equipment, and high efficiency building envelope standards. Energy Star homes also encourage the use of energy-efficient lighting and appliances. These features contribute to improved home quality and homeowner comfort, and to lower energy demand and reduced air pollution. The Member should receive the Energy Star Certificate for the new home for the program. Members can submit a RRR to Brazos Electric for the incentive rebate for the Energy Star New Home Construction program after receipt of verification that the new home meets the standards set forth above for residential retail member's served by the Member.

## **CEILING INSULATION (SPACE HEATING & COOLING)**

<u>Ceiling Insulation</u>: Ceiling insulation levels vary greatly depending on the age of the home, type of insulation, and activity in the attic (*i.e.*, using the attic for storage and HVAC equipment). To be eligible for this rebate, the existing insulation must be less than or equal to R8 (3.75 inches of insulation or less) and must be improved to R38 or greater (approximately 17 inches or greater of insulation). Incentive rebates for this program are limited to ceiling insulation upgrades for single family homes and not for mobile homes; further, the upgrades only apply to electric air conditioners with electric resistance heating and cannot be used in situations where a heat pump is installed as a primary heating source. Members can submit a RRR to Brazos Electric for the incentive rebate for the Ceiling Insulation program after the Member determines that the installation was completed at the retail member's residence in accordance with the preceding requirements.

### HIGH EFFICIENCY ELECTRIC HEAT PUMP (SPACE HEATING & COOLING)

<u>High Efficiency Electric Heat Pumps:</u> Electric heat pumps operate by transferring heat from one place to another. In the heating mode, a heat pump extracts heat from outside a residence and delivers it to the house. Like a furnace, most heat pumps work with forced warm-air delivery systems. Heat pumps can also be operated to cool a house during summer months. In the cooling

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mode, the cycle is reversed and heat is taken from the house and transferred to the outside air. Because heat pumps rely on the outside air as the heat source in the wintertime, they are much more common in warmer climates.

Heat pumps are rated for both heating and cooling — both in terms of capacity and efficiency. Heating efficiency is indicated by the heating season performance factor ("HSPF"). Cooling efficiency is indicated by the seasonal energy efficiency rating ("SEER"). Both indicate the relative amount of energy needed to provide a specific heating or cooling output. New residential heat pump standards went into effect in January 2006. Heat pumps manufactured after January 2006 must achieve a HSPF of 7.7 and a SEER of 13 or higher.

<u>14 SEER High Efficiency Electric Heat Pumps</u>: For this program, the baseline replacement model has a HSPF of 7.7 and a SEER of 13. The 14 SEER High Efficiency Heat Pump has a HSPF of 8.2 and a SEER of 14.

<u>15 SEER High Efficiency Heat Pumps</u>: For this program, the baseline replacement model remains at HSPF 7.7 and SEER 13. The 15 SEER High Efficiency Heat Pump has a HSPF of 9.0 and a SEER of 15.

The incentive rebates for this program apply for replacement of existing HVAC equipment at any residential home (including mobile homes) and new home construction. The retail member must obtain a receipt with the Air-Conditioning Heating and Refrigeration Institute ("AHRI") designation of the qualifying installation from the retail member's contractor to present to the Member for verification purposes. This incentive rebate is not applicable for homes that <u>use natural gas</u>, <u>propane or other fossil fuel for heating</u>.

The incentive rebates for this program are as follows: (1) the 14 SEER rebate is applicable to any unit purchased and installed with (a) a SEER equal to or greater than 14 but less than 15, and (b) a HSPF equal to or greater than 8.2; and (2) the 15 SEER rebate is applicable to any unit purchased and installed with (a) a SEER equal to or greater than 15, and (b) a HSPF equal to or greater than 9.0. Members can submit a RRR to Brazos Electric for the incentive rebate for the High Efficiency Heat Pumps program after the Member determines that the installation was completed at the retail member's residence in accordance with the preceding requirements.

## **ENERGY STAR ROOM AIR CONDITIONERS**

Energy Star Room Air Conditioners: Room air conditioner units are typically mounted in a window so that part of the unit is outside and part is inside. An insulated divider to reduce heat transfer losses typically separates the two sides. The outdoor portion generally includes a compressor, condenser, condenser fan, fan motor, and capillary tube. The indoor portion generally includes an evaporator and evaporator fan. The minimum federal standard used in this analysis (based on model type and capacity) is an Energy Efficiency Ratio (EER) of at least 9.8. Currently, units with an EER of 10.8 are eligible for the ENERGY STAR® label. This analysis assumed a room air conditioner cooling capacity of 8,000 Btu/hr and 1,926 full-load cooling hours (Dallas climate zone).

## ENERGY STAR DISHWASHER (Electric Water heating Only)

<u>Energy Star Dishwasher:</u> Dishwashers exceeding minimum qualifying efficiency standards established under Energy Star Program with an Energy Factor (EF) >= .65 (versus the current federal standard energy factor <=.46). Energy Star labeled dishwashers save energy by using both improved technology for the primary wash cycle, and by using less hot water to clean. Construction includes more effective washing action, energy efficient motors and other advanced technology such as sensors that determine the length of the wash cycle and the temperature of the water necessary to clean the dishes. In addition, a high efficiency dishwasher can save approximately 635 gallons of water a year if used to run an average of 4 loads per week. This measure is <u>limited to homes having electric water heating and</u> dishwashers.

## **HIGH EFFICIENCY WATER HEATER**

<u>High Efficiency Water Heater (stand-alone)</u>: In this measure, baseline replacement stand alone electric water heaters are replaced with high efficiency stand alone storage tank water heaters. Storage water heaters work by heating up water in an insulated tank. However, because heat is lost through the walls of the storage tank, energy is consumed even when no hot water is being used. New high-efficiency storage water heaters contain higher levels of insulation around the tank, reducing standby losses. In this analysis a baseline replacement model (EF=.90) is replaced with a high efficiency model (EF=.94). This measure applies to homes operating primarily electric heating systems and electric water heaters. (Note: Does not apply to electric tankless water heaters.)

## COMMERCIAL LIGHTING (T-8 BULB REPLACEMENT)

<u>T-8 Commercial Bulb Replacement:</u> A variety of high efficiency fixtures, ballasts and lamps exist in the market today, producing the same amount of lumens, while consuming less electricity. Deemed lighting savings are mature components of utility–sponsored demand-side management offerings around the country. This measure considers BULB REPLACEMENT only, not replacement of fixtures or ballasts.

Numerous commercial and industrial buildings already have T8 bulbs and ballasts, but are looking for a low-cost way to save energy. Standard T8 bulbs typically sold as 32 watt bulbs, but can be replaced with 28 watt or 25 watt bulbs to save energy immediately. Utilities that are currently running these programs offer a \$1.00 incentive to change out to a 28 watt bulb and a \$1.50 incentive for a 25 watt bulb.

## **COMMERCIAL LIGHTING (FIXTURE UPGRADES)**

A variety of high efficiency fixtures, ballasts and lamps exist in the market today producing the same amount of lumens while consuming less electricity. Deemed lighting savings are mature components of utility sponsored demand-side management offerings around the country.

Many different types of energy efficient fixtures exist today. The Commercial Lighting Fixture Upgrade program measures the difference between the original fixture and the new fixture in base wattage. Incentive rebates are calculated based on this difference. Due to the many potential variations of fixture upgrades for lighting, this program does not specifically designate the eligible

incentive rebate for a particular fixture types. Rather, the incentive rebate is calculated using the savings in base wattage comparison between the original and new fixture.

The Member should work with its commercial retail member to perform a detailed pre- and post-audit to verify base wattage differences and upgrade verification. Members can submit a RRR to Brazos Electric for the incentive rebate for the Commercial Lighting Fixture Upgrade program after the Member determines that the installation was completed at the commercial member's location in accordance with the preceding requirements.

A non-exclusive list of potential upgrade items are listed below:

<u>Super T8 Fixture - from 34W T12; from standard T8:</u> High-Performance or Super T8 lamp/ballast systems have higher lumens per watt than standard T8 systems. This results in lamp/ballast systems that produce equal or greater light than standard T8 systems, while using fewer watts. When used in a high-bay application, high-performance T8 fixtures can provide equal light to high intensity discharge high-bay fixtures, while using fewer watts.

T5 Fluorescent High-Bay Fixtures; Troffer/Wrap; Industrial Strip; Indirect: A T5 high-bay fixture has a fixture efficiency of over 91%, while a metal-halide fixture has a fixture efficiency of approximately 70%. By using a more efficient fixture, a space can be lit with fewer watts or fixtures. Typically, a 4-lamp F54T5HO system using 240 watts will provide as much light on a target surface as a standard 400 watt metal-halide fixture using 455 watts.

<u>Induction Fluorescent 23W:</u> Inductive fluorescent lamps are white light sources with very good color rendering and color temperature properties. These lamps are energy efficient and offer extremely long life (over 100,000 hours), good lumen maintenance characteristics, and instant-on capability. The lamp enclosure is called a "vessel" that varies in shapes and is coated on the inside with phosphor. Dimming capability is already available in Europe and will be available in the near future in the United States. They are powered by a small generator (about the size of a fluorescent ballast) attached to the lamp via a short fixed-length cable. The generator induces a current in the lamp which causes it to glow (there are no electrodes to wear out). The larger, diffuse nature of these sources makes them excellent for lighting larger volumes and surfaces. They are often used in place of low- to medium-wattage high intensity discharge sources because of the instant-on capability and reduced maintenance associated with the longer lamp life. This lamp source has promising application for indoor and outdoor lighting applications.

<u>Exterior High Intensity Discharge:</u> Exterior metal halide ("MH") or high-pressure sodium ("HPS") high intensity discharge fixtures less than or equal to 100 watts. Assumes an efficient high intensity discharge 90 W bulb replaces a baseline quartz halogen 200 W bulb.

<u>Electronic High Intensity Discharge Fixture Upgrade:</u> This measure assumes that a 320 W Pulse Start Metal Halide (MH) high intensity discharge light fixture replaces a standard 400 W high intensity discharge fixture.

<u>Halogen Infra-Red Bulb:</u> A new development in halogen technology is the advent of Infra-Red bulbs. Available only in PAR30, PAR38, and MR16 type bulbs, it is used for spot-lighting, often in museums, retail establishments, and restaurants. The technology generally offers around 20% energy-savings, and longer lamp life.

<u>Metal Halide Track:</u> A metal-halide track head produces equal or more light as compared to halogen track head(s), while using fewer watts. Typically, a 39 watt PAR20 metal-halide track head using 43 watts can be used in place of three 50 watt halogen PAR20 track heads.

<u>Integrated Ballast MH 25W:</u> Integrated ballast 25W Par 38 metal halide lamps are three times more efficient than the Par 38 halogen lamps that they replace. Light output is comparable and the 10,500 hour life of the metal halide lamps is up to three times longer than standard halogens. Very good color rendering of 87 and a crisp white light (3000K) make this a good replacement lamp for general, ambient or accent lighting. The integrated ballast allows for an easy upgrade from a halogen Par 38. Due to the high pressure and operating temperature of metal halide lamps, there are some safety considerations concerning these efficient lamps.

<u>Lighting Power Density:</u> Efficient lighting with a reduced wattage compared to the baseline, other than controls. This methodology is generally applied to commercial new construction and remodel or renovation of existing buildings, including both facilities that are and are not subject to Act 250 review.

<u>LED Exit Sign:</u> Exit signs illuminated with light emitting diodes ("LEDs").

<u>Traffic Signal Upgrades:</u> Traffic signals illuminated with LEDs save energy over the traditional light bulb traffic signals. Several utilities across the country have initiated programs for this type of upgrade.

<u>LED Freezer/Display Lighting:</u> Replacing standard bulbs in freezer display departments with LEDs allows both energy savings from light and heat. Further, several studies indicate that LED lighting in freezer sections actually provide better lighting colors for consumers.

## Brazos Electric Cooperative EERP Measure Summary For the Year Ending December 31, 2011

2011

CCP Year

					Sum of Total	\$	\$0.00 \$495,371.75	\$0.00 \$495,371.75
					Sum of S	*djustments	\$0.00	\$0.00
				Effeciency Replaceme Replaceme Sum of Start-	dn	28w Expenditures Adjustments	0 \$11,901.00	0 \$11,901.00
		Sum of T-8	Bulb	Replaceme	nt 32w to nt 32w to	25w	0	0
		Sum of Sum of T-8 Sum of T-8	Bulb	Replaceme	nt 32w to	28w	0	0
		Sum of	High	Effeciency	Water	Heater	9	9
			Sum of	Energy	Star	Diswasher	18	18
				Sum of	<b>Energy Star</b>	Room A/C	4	4
		Sum of	Fixture	Upgrade	(per watt	savings)	80 69,525	69,525
				Sum of 15	SEER Heat	Pump	80	80
				Sum of 14 Sum of 15 Upgrade	SEER Heat	Pump	2	2
	Sum of R0-	R8 upgrade	to R38+	(A/C &	Resistance SEER Heat SEER Heat (per watt Energy Star Star	Htg)	35	35
		Sum of R8 upgrade	Energy Star to R38+	Home - 15% (A/C &	More	Efficient	138	138
				_	Heater Pipe Sum of HVAC More	Bulbs Head Aerator Blanket Wrap Tune-up Efficient Htg.) Pump Pump savings) Room A/C Diswasher Heater	2,292	2,292
				Sum of	Pipe Su	Wrap	20	20
			Sum of Sum of	Water	Heater	Blanket	5 56	5 56
			Sum of	ium of Low Low Flow Water	r Faucet	Aerator	7 36	7 36
				Sum of Low	Flow Shower	Head	47	4,
Data					Sum of CFL Flow Shower Faucet	Bulbs	2,879	2,879
						Member Coop	Tri-County	Grand Total

	495,372	100,00%			<u>Total</u> 2,246,940	717
	``	0.00%			,	
	11,901 \$	2,40%				
2.25	ψ.	%00'0		13.1	'	-
0 \$ 1.50 \$	\$	0.00%		7,5		
4 18 6 30.00 \$ 15.00 \$ 25.00 \$	\$ 150 \$	0.03%		175	1,050	0.12
18 \$ 15.00	\$ 270	0.05%		137	2,466	0.31
\$ 30.00	120	0.02%		163 0.085	652	0.34
35 2 80 69,525 \$ 300.00 \$ 150.00 \$ 300.00 \$ 0,30 \$	\$ 20,858	4.21%		n/a n/a	236,385	26.00
80 \$ 300.00	\$ 24,000	4.84%		825 0.252	990099	20,16
2 \$ 150,00	\$ 300	0.06%		390	780	0.24
35 300.00	\$ 10,500	2.12%		158 0.082	5,530	2.87
2,292 138 150.00 \$ 550.00 \$	75,900	15,32%		2550	351,900	78.66
	\$ 343,800	69.40%		616.37 0.23	1,412,720	527.16
20 \$ 15.00	\$ 300	0.06%		400.004	800	0.08
56 \$22.50	\$ 1,260	0.25%		100	5,600	0.56
36 7.50	270	0.05%		48	1,728	0.25
47 36 56 20 15,00 \$ 7.50 \$22,50 \$15.00 \$	705 \$	0.14%		186 0.022	8,742	1.03
2,879 \$ 1.75 \$	\$ 5,038 \$ 705 \$ 270	1.02%	(Annual Impact	53	152,587	28.79
Total Incentive	Total Rebate	% of Total	Estimated kWh and kW Annual Impact	Annual kWh Savings Annual kW Savings	Annual kWh Savings	Peak kW Savings

Central Headquarters Office / 600 N W Parkway / Azle, Tx 76020 / Ph:(817)444-3201or 1-800-367-8232 / Fax # (817)444-3542

Southwest District Office / 1623 Weatherford Hwy. / Granbury, Tx 76048 / Ph:(817)279-7010 / Fax # (817)279-7012 Northeast District Office / 4900 Keller Hicks Rd. / Fort Worth, Tx 76244 / Ph:(817)431-1541 / Fax # (817)431-9680

B-K District Office / 419 N. Main, P O Box Drawer 672 / Seymour, Tx 76380 / Ph. (940)888-3441 / Fax # (940)888-3820

## **Energy Efficiency Rebate Program**

## **Application for Rebate Payment**

Program Amended January 1, 2011

Rebate payments are subject to suspension in the event that funds budgeted for the program are consumed.

## **HOME ENERGY AUDIT**

Date:	_		
Electric Service Account Number:		Ph:	
Customer Name:			
Address:	City:	State: Zip:	
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## **Compact Fluorescent Lighting**

Replace existing incandescent bulbs with compact florescent lighting.

Qualified Rebate: \$1.25 per bulb. Attach Purchase Receipt for CFL bulbs to application for rebate.

## **Low Flow Shower Heads**

Replace existing shower head with a new one having a flow rate under 2 gallons per minute.

Qualified Rebate: \$10.00 per shower head, electric water heating only. Attach Purchase Receipt for Shower Head to application for rebate.

## **Low Flow Faucet Aerators**

Replace an existing faucet with a unit that has a low-flow rate of 1.5 gallons per minute in bathrooms and less than 2.2 gallons per minute in kitchens.

Qualified Rebate: \$5.00 per faucet, electric water heating only. Attach Purchase Receipt for Faucet Aerators to application for rebate.

## Water Heater Blanket

Install an insulating blanket on your existing electric water heater.

Qualified Rebate: \$15.00 per electric water heater. Attach Purchase Receipt for Insulating Blanket to application for rebate,

### Pipe Wrap

Insulate all exposed hot water pipes to reduce heat loss.

Qualified Rebate: \$10.00 per electric water heater. Attach Purchase Receipt for Pipe Wrap Insulation to application for rebate.

## **Heating and Air Conditioning Tune-Up**

A HVAC tune-up includes checking and correcting the unit's refrigerant charge, repairing leaks if required, cleaning and lubricating the blower unit, inspecting and cleaning of refrigerant coils, replacing filters, thermostat inspection, wiring inspection and duct work inspection.

Qualified Rebate: \$100.00 per unit, one HVAC Tune-up allowed for each Member's applicable delivery point.

Attach a legible copy of the invoice from a licensed HVAC contractor to application for rebate.

Central Headquarters Office / 600 N W Parkway / Azle, Tx 76020 / Ph:(817)444-3201or 1-800-367-8232 / Fax # (817)444-3542 Southwest District Office / 1623 Weatherford Hwy. / Granbury, Tx 76048 / Ph:(817)279-7010 / Fax # (817)279-7012 Northeast District Office / 4900 Keller Hicks Rd. / Fort Worth, Tx 76244 / Ph:(817)431-1541 / Fax # (817)431-9680 B-K District Office / 419 N. Main, P O Box Drawer 672 / Seymour, Tx 76380 / Ph: (940)888-3441 / Fax # (940)888-3820

## **Energy Efficiency Rebate Program**

## **Application for Rebate Payment**

Rebate payments are subject to suspension in the event that funds budgeted for the program are consumed,

## RESIDENTIAL NEW HOME CONSTRUCTION

Date:			
Electric Service Account Number:		Ph:	
Customer Name:			=
Address:	City:	State:	Zip:

## **ENERGY STAR RATED NEW HOME CONSTRUCTION**

New homes earning an Energy Star Certificate are at least 15% more efficient than those built to the 2004 International Residential Code ("IRC"). Energy Star homes encourage the use of energy efficient lighting, appliances, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct work, high efficiency water heating and high efficiency building envelope standards.

Qualified Rebate: \$500.00, Energy Star certification certificate must be provided by builder for the residence applying for the rebate. Copy of certificate must be attached to application for rebate.

Central Headquarters Office / 600 N W Parkway / Azle, Tx 76020 / Ph:(817)444-3201or 1-800-367-8232 / Fax # (817)444-3542 Southwest District Office / 1623 Weatherford Hwy. / Granbury, Tx 76048 / Ph:(817)279-7010 / Fax # (817)279-7012 Northeast District Office / 4900 Keller Hicks Rd. / Fort Worth, Tx 76244 / Ph:(817)431-1541 / Fax # (817)431-9680 B-K District Office / 419 N. Main. P O Box Drawer 672 / Seymour, Tx 76380 / Ph: (940)888-3441 / Fax # (940)888-3820

## **Energy Efficiency Rebate Program**

## Application for Rebate Payment

Rebate payments are subject to suspension in the event that funds budgeted for the program are consumed.

## **CEILING INSULATION**

Date:				
Electric Service Account Number:		Ph:		
Customer Name:			=	
Address:	City:	State:	Zip:	

## **CEILING INSULATION UPGRADE**

This rebate is available to members living in conventional single family homes using electric air conditioning and resistance electric heat. Homes with R-8 insulation or less must increase insulation to a minimum of R-38 to qualify for the rebate. A receipt from the contractor preforming the upgrade must document existing insulation R-Value prior to upgrade and the resulting R-Value after the upgrade.

Qualified Rebate: \$275.00, per residence. A copy of the contractors invoice must be attached to the application for rebate.

Central Headquarters Office / 600 N W Parkway / Azle, Tx 76020 / Ph:(817)444-3201or 1-800-367-8232 / Fax # (817)444-3542 Southwest District Office / 1623 Weatherford Hwy. / Granbury, Tx 76048 / Ph:(817)279-7010 / Fax # (817)279-7012 Northeast District Office / 4900 Keller Hicks Rd. / Fort Worth, Tx 76244 / Ph:(817)431-1541 / Fax # (817)431-9680 B-K District Office / 419 N. Main, P O Box Drawer 672 / Seymour, Tx 76380 / Ph: (940)888-3441 / Fax # (940)888-3820

## **Energy Efficiency Rebate Program**

Application for Rebate Payment

Rebate payments are subject to suspension in the event that funds budgeted for the program are consumed.

## **HEAT PUMP INSTALLATION**

Date:				
Electric Service Account Number:		Ph:		
Customer Name:			-	
Address:	City:	State:	Zip:	

## HIGH EFFICIENCY ELECTRIC HEAT PUMP

On January 1, 2006, heat pump manufacturers were required to achieve a minimum performance of 13 SEER for cooling and 7.7 HSPF for heating to market equipment inside the United States. Members are encouraged to purchase equipment with better performance to reduce kW demand and energy consumption. Members requesting a rebate must provide a purchase receipt from a licensed HVAC contractor showing the brand name and model numbers of the equipment installed. The equipment efficiency will be certified by the Air-Conditioning Heating and Refrigeration Institute, (ARI) and a copy of the certification must accompany the sales receipt.

14 SEER Heat Pump, Qualified Rebate: \$100.00, A copy of the invoice showing brand name, model numbers of equipment and ARI certification must be attached to application for rebate.

15+ SEER Heat Pump, Qualified Rebate: \$200.00, A copy of the invoice showing brand name, model numbers of equipment and ARI certification must be attached to application for rebate.

### **ENERGY STAR ROOM AIR CONDITIONERS**

Room air conditioners are typically mounted in a window so that part of the unit is outside and part is inside. The unit must be new with a minimum Energy Efficiency Ratio (EER) of 10.8 to qualify for the Energy Star label. To claim this rebate simply complete this form and attach a copy of the purchase receipt. Also include a copy of the Energy Star Certificate showing that the unit performs to the minimum EER. Rebate amount is \$30.00.

### **ENERGY STAR DISHWASHER (Electric Water Heating Only)**

New dishwashers exceeding the minimum qualifying efficiency standards established under the Energy Star Program with an Energy Factor (EF) Rating greater than or equal to .65. Energy Star dishwashers save energy by using both improved technology for the primary wash cycle, and by using less hot water to clean. These units include more efficient washing action, energy efficient motors and other advanced technology to reduce hot water and electricity consumption. To claim this rebate simply complete this form and attach a copy of the purchase receipt. Also include a copy of the Energy Star Certificate showing that the unit performs to the minimum .65 EF rating. Rebate amount is \$15.00.

Central Headquarters Office / 600 N W Parkway / Azle, Tx 76020 / Ph:(817)444-3201or 1-800-367-8232 / Fax # (817)444-3542 Southwest District Office / 1623 Weatherford Hwy. / Granbury, Tx 76048 / Ph:(817)279-7010 / Fax # (817)279-7012 Northeast District Office / 4900 Keller Hicks Rd. / Fort Worth, Tx 76244 / Ph:(817)431-1541 / Fax # (817)431-9680 B-K District Office / 419 N. Main, P O Box Drawer 672 / Seymour, Tx 76380 / Ph: (940)888-3441 / Fax # (940)888-3820

## **Energy Efficiency Rebate Program**

## **Application for Rebate Payment**

Rebate payments are subject to suspension in the event that funds budgeted for the program are consumed,

## **COMMERCIAL LIGHTING UPGRADE**

Date:			
Electric Service Account Number:		Ph:	
Customer Name:			
Address:	City:	State:	Zip:

## COMMERCIAL LIGHTING FIXTURE UPGRADES

A variety of high efficiency fixtures, ballasts and lamps exist in the market today producing the same output of lumens while consuming fewer watts of electricity. Replacing existing lighting with new high efficiency lighting will result in a reduction in the number of watts of electricity needed to operate the lighting.

Qualified Rebate: \$0.20 per watt saved per fixture. Details on existing fixtures, bulbs and ballasts must be included with application for rebate and information on replacement fixtures, bulbs and ballasts. This information will be used to calculate the watts saved per fixture and the number of fixtures being upgraded for each class. This information must be attached with the application for rebate.

## COMMERCIAL LIGHTING (T-8 BULB REPLACEMENT Remove 32 Watt Bulb Upgraded to 28 Watt)

Qualified Rebate: \$1.00 per bulb. Details on the existing fixtures and the number of 32 watt bulbs being removed and replaced with 28 watt bulbs must be included with application for rebate. A paid receipt from the contractor preforming the upgrade must also be provided and attached to the application for rebate.

## COMMERCIAL LIGHTING (T-8 BULB REPLACEMENT Remove 32 Watt Bulb Upgraded to 25 Watt)

Qualified Rebate: \$1.50 per bulb. Details on the existing fixtures and the number of 32 watt bulbs being removed and replaced with 25 watt bulbs must be included with application for rebate. A paid receipt from the contractor preforming the upgrade must also be provided and attached to the application for rebate.

## TRI-COUNTY Electric Cooperative, Inc. "A Commitment to Service and Savings"

## Watts On Watts Off Energy Savings Made Simple

## Seal air leaks in your home.

197510001

Sealing air leaks with caulk, spray foam, or weather stripping will have a significant impact on improving your comfort and reducing energy bills. If you are adding insulation to your home, be sure to seal air leaks first, to ensure you get the best performance from your insulation. Sealing air leaks outside the home can also prevent costly damage from water, insects and animals which use the path to gain access to the interior wall.

## Maintain heating equipment.

6065004

Dirt and neglect are the number one causes of heating system failure. To maintain your equipment, check your system's air filter every month and change it if it is dirty. At a minimum, change it every three months. Schedule preseason checkups for your equipment with a licensed contractor to make sure



your system is operating at peak performance. Tri-County Electric Cooperative will pay an energy efficiency rebate of \$100.00 for each HVAC system you have checked by a licensed contractor. Each cooperative member is allowed to use this rebate incentive on their home one time. So if you have not preformed a HVAC Tune-up in several years, make a new years resolution to correct that problem. Rebate applications can be found at www.TCECTEXAS.COM. Select the "Member Services" button and under it select "Energy Efficiency Rebates". A great way to lower your operating cost and keep your family safe.

18401003

## Use a programmable thermostat.

Control your homes temperature while you're away or asleep by using one of the convenient pre-programmed settings on a programmable thermostat. When used properly, programmable thermostats can save you up to \$180 every year in energy costs.

Look for Energy Star qualified products. Whether you are replacing light bulbs or appliances in your home, Energy Star qualified products can help you save energy and reduce energy bills. The Energy Star label can be found on more than 60 types of products ranging from heating and cooling equipment to compact fluorescent light bulbs (CFLs).

## Shut down vampire equipment in your home.

You can save energy in your home by using power strips as a central turn-off point for electronics and office equipment. This can be especially helpful with



televisions in unused bedrooms or offices. Any appliance that can be turned on with a remote control must use energy to monitor for that remote control signal. By selecting a surge suppression outlet strip with a hard off switch, you can turn off the television, stereo, DVD player and VCR preventing the unnecessary use of electricity.

## Pull that warm air off the high ceiling and push it back down to your comfort zone.

Most ceiling fans have a reversing switch to make the fan pull air up into the upper ceiling area. By reversing the blade rotation on your ceiling fans, it forces the warmer air hugging the ceiling back down to your level. Remember when you were taking down those holiday decorations how hot it was at the top of that ladder. By running the ceiling fan in reverse you draw cool air from the lower floor and deflect it into the ceiling. This forces the warm air down along the outer walls of the room and limits that drafty feeling. Select a low speed on the fan to limit drafts caused by fast moving air.

800610796

## Resolve to Stay Safe!

Most of our New Years Resolutions include some common elements: "Spend Less & Save More", "Eat Less & Exercise More" and "Work Less & Spend More Time With Family".

We at Tri-County Electric Cooperative would like to encourage you to add a few things to this year's list to help keep your family safe. A common New Year's saying is out with the old and in with the new, and this applies to some of your older refrigerators and freezers that found their way from the kitchen to the laundry area or garage. The old unit is still working but lacked some of the newer features that your family needed. The freezer is all iced up and the door gasket is broken in a couple places but the soft drinks are cold. As you open the door one more time you notice that the unit is running and you can't remember the last time you opened the door and it wasn't running. It's time to make a resolution to unplug the unit and properly dispose of it. See if your family can get by without it for a few weeks but if you truly need the extra space replace it with a new energy efficient unit. 800632929

Have you ever turned off a light switch and felt a warm cover plate? This is a warning that something is wrong. It could be a loose connection or you may have too many watts of lighting on the circuit. We recommend that you have a licensed electrician check it out as quickly as possible. Older homes now have a number of electronics that did not exist 20 years ago. It may be time to add a new circuit to the room to break up the electric load and prevent the heating that you felt at the wall switch. In any case respond to the warning before things get serious.

If you regularly find yourself headed to the breaker box with a flash light in hand to restore power, it's probably time for an upgrade. Let your electrician know what's going on and causing trouble throughout your home. He may be able to make suggestions on how to get things back on track and working properly. But if you need new wiring it's time to make a resolution and get it corrected before serious damage occurs.

## It PaysTo Stay Informed

Find your account number in our Member Information Bulletin and you will receive a \$20.00 credit on your electric bill. Simply contact one of the offices listed at the right and make them aware of your discovery.

8000851502

It pays to stay informed!

From The Cooperative Kitchen

This month's recipe was provided by Dave Smith from Weatherford. He will receive a 60 Years of Home Cooking Cookbook, compliments of TCEC.







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# Winter Chills Keep Rolling In

The Tri-County Electric Cooperative service area experienced weather conditions which included snow, sleet, freezing rain and extremely cold temperatures during January, making energy-saving tips and a home emergency kit a good idea during winter weather.

- For economy, set the thermostat for 68 degrees, and then leave it alone. Each degree above that adds to your cost. Setting it higher won't heat your home any faster. A lower setting of 63 degrees will conserve energy when you plan to be away for the day.

  8005201901
- Inspect the furnace air filter to make sure it is clean. Check filters at least once a month. If it's a permanent-type filter, clean it according to the manufacturer's directions. A disposable one should be checked each month and replaced when needed. Dirty filters cause the equipment to work harder and use more electricity. Remember colder temperatures cause the equipment to run longer and as a result air filters may need to be checked, cleaned or replaced more frequently.
- The entire heating system should be inspected and serviced each year to operate at maximum efficiency. Ask your HVAC contractor for a system tune-up which will verify that the equipment is working properly and the duct system is not bleeding conditioned air into the attic. A duct system with improperly sealed joints can loose as much as 25% of conditioned air. If insulating material is coming loose or has fallen off, repairs should be made.

Some older flex duct systems which were manufactured with plastics on the outside and inside are breaking down due to exposure to high attic temperatures. The constant flexing caused by air pressure inside the duct has caused the

plastics used to build the duct to crack. You may have seen pieces of the material inside a register or on the floor or table in your home. This type of break down can result in losses in excess of 25%. Schedule a HVAC Tune-Up and remember to file for your rebate with Tri-County Electric Cooperative. Each member is allowed to file for a HVAC Tune-Up on their equipment one time. The Cooperative will pay \$100.00 per system for the HVAC Tune-Up. Applications for energy efficient rebates can be found on the Internet at www.TCECTEXAS.COM. Look under MEMBER SERVICES and then select EFFICIENCY REBATES. This will take you to a page and link to print copies of the rebates available through Tri-County Electric Cooperative.

- Weather-strip doors and windows to prevent expensive air leaks. Check caulking around windows, doors and other parts of the house. If you can't fix it block it! Take an old bath towel and roll it up into a tube. Place a rubber band on each end and lay it at the base of the door.
- Air leakage through small cracks and holes in a homes exterior is a major reason for heat loss in the winter. Make sure all doors and windows are closed when the heating unit is operating.

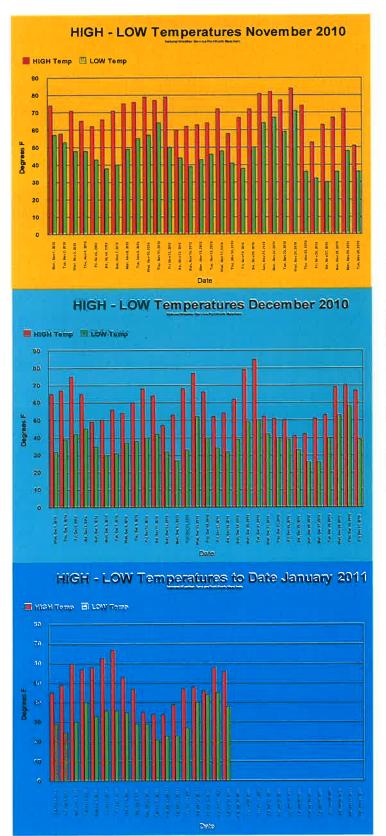
  7000012001
- Open curtains or blinds on the sunny side of the house and allow sunshine into the home. Otherwise, keep shades closed to help keep the warm air inside.
- Inspect the attic. Heat rising through the ceiling into the attic is another major source of heat loss. Older recessed light cans that were not double walled and do not have over temperature protection will allow a tremendous amount of heat to escape into the attic. Replacing the light can is the best and safest way to improve your homes energy efficiency level.

  800593175
- When the fireplace is not in use, be sure the damper is tightly closed. Glass fireplace doors are also good for additional savings.

TCEC members are encouraged to have blankets, flashlights, portable radios and TVs, and a supply of fresh batteries on hand if the power should go off due to inclement winter weather.

Members can report power outages to Tri-County Electric Cooperative 24 hours a day by calling 817-444-3201 or 1-800-367-8232.

February 2011 Member Information Bulletin



## It PaysTo Stay Informed

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It pays to stay informed!

## From The Cooperative Kitchen

This month's recipe was provided by Russell Barham from Granbury. He will receive a 60 Years of Home Cooking Cookbook, compliments of TCEC.



## Red Springs Mexican Casserole

## · INGREDIENTS ···

3 - Pounds of Hamburger Meat 1 - Large Onion

- 4 Ounces of Chopped Green Chili Peppers
  - 1 15 Ounce Can of Enchilada Sauce
- 1 15 Ounce can of Cream of Mushroom Soup
- 1 15 Ounce can of Cream of Chicken Soup
  - 1 Package of Velveeta Cheese
  - 2 Packages of Taco Seasoning
  - 13 Ounces of Tostitos Corn Chips

## · DIRECTIONS ···

In a large skillet cook onion and hamburger meat and stir in Taco seasoning. (Do not brown)

Drain off grease and then add soups and sauce. Stir well and simmer for 30 minutes.

Add the 4 ounces of Green Chili Peppers and season to personal taste. 8001268801

In a 13 X 9 inch pan layer chips, meat and cheese until all meat is used up. 31904001

Heat in oven until thoroughly hot and melted. Can be frozen if any left over. A great hot meal for a cold day!

800673479



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## TRI-COUNTY Electric Cooperative, Inc.

" A Commitment to Service and Savings "

## A Leaky Duct System Is

## **Losing More Than Air**



Damaged leaking air ducts allow conditioned air to discharge into unconditioned space. They also provide a path for dust from insulation to enter your home.

Did you know that your home's duct system could be losing as much as 20 percent of its air? Here's a tip that can help your heating and cooling system work more efficiently and save you money. A leaky duct system wastes energy, increasing your utility bill. So it makes sense to find and eliminate those leaks. Sealing the air ducts in

your home can save you up to \$177 a year.

Saving money is one good reason to seal your ducts. But there are other reasons, too. A leaky duct system affects your quality of life. It makes the rooms in your home stuffy and less comfortable, not cool enough in the summer or warm enough in the winter. Insulation particles, dust and pollen can enter a leaky system, they may affect your home's indoor air quality. The first step is to find the biggest air leaks in your home. In the attic, the greatest duct leaks are typically found where the walls meet the attic floor, above drop ceilings and overhangs and behind attic walls. Look for insulation that is dirty or discolored, indicating that air has been moving through it. Next, you can begin sealing the leaks that you have found.

5873400001

Remember your Cooperative will pay \$100.00 per system for having a licensed heating and air conditioning contractor come to your home and preform a Heating, Ventilation and Air Conditioning Tune-Up. The contractor can check your system and advise you on what needs to be done to keep your equipment performing at it's best efficiency. All cooperative members are allowed to apply for the HVAC Tune-up one time.

800656773

Go to WWW.TCECTEXAS.COM and select the "MEMBER SERVICES" tab and then select the "EFFICIENCY REBATES" tab. A link to the various efficiency rebate programs available through Tri-County Electric Cooperative will be made available.

Get your home ready for the coming hot summer. You can save on your electric cost and improve your family's level of comfort.

## Metal Theft Risks Safety & Lives

Would you risk being hit by lightning for \$100?

Seems a bit ludicrous, but desperate times cause folks to do foolish things. Thefts of copper, aluminum and bronze are on the rise at abandoned commercial buildings, empty homes, and most dangerously at power substations near neighborhoods. We need your help to keep our equipment safe, prevent outages and save lives.

30062001

Back in February 2011, metal thieves took off with about \$100 of wire from a substation, but left behind several thousand dollars in damage to transformers and metering equipment. Approximately 272 cooperative members were temporarily left in the dark after the incident, although the co-op moved quickly to re-route power to affected areas.

4999100001

It's hard to understand why folks would risk their lives for a few dollars. Regardless of who is doing it, the damage done to our system packs a big punch because equipment can be ruined without the protection copper wires provide. There's also the potential for loss of life. Last year in the U.S., several deaths related to metal theft occurred.

The cost for scrap copper goes up and down, but recently it's been on the rise and so have theft attempts. In January 2011, scrap copper sold for five times the amount it went for in 2001. We use copper to ground our equipment, protecting it from electrical surges and lightning by giving electricity a safe path to ground. We use a lot of copper wire in our substations, where we step down high-voltage electricity arriving from distant power plants before it travels to your neighborhood. Then another transformer near your home either mounted on a utility pole or in a green box on the ground lowers the voltage again so you can use the power at home. Copper is an essential component every step of the way. Our linemen are highly trained professionals who understand the dangers of working with electricity and take proper safety precautions. To protect the public, we surround our substations with secure fencing and post warning signs. But some thieves will not be deterred. 7000007701

Please help us prevent these thefts. If you notice anything unusual, such as an open substation gate, open equipment or hanging wire, call Tri-County Electric Cooperative immediately at 1-800-367-8232.

If you see anyone other than our utility personnel or contractors around substations or other electric facilities, call the police.

**April 2011 Member Information Bulletin** 

## Average Electric Use In A Total Electric Use 11.6% Lighting 11.6% Lighting 11.6% Lighting 11.6% Lighting 11.6%



Knowing which household activities consume the most electricity can help homeowners' determine where they can save on electric bills.

Regulating temperatures inside the home uses the most electricity. Almost 40% of the electric bill for a total electric home covers the cost of cooling and heating, according to the U. S. Department of Energy data.

As Texas approaches hot weather months when temperatures outside can reach triple digits, having an effective cooling system becomes critical. Finding ways to increase the efficiency of an air conditioner can create a cost savings on electric bills during the summer season. To make the best use of an air conditioner it helps to know the two basic functions that a air conditioner does.

First it reduces humidity Second it lowers temperature.

Decreasing humidity inside and increasing a unit's capacity for cooling can help keep your home comfortable. Here are some practical methods to keep humidity and temperatures down.

### HUMIDITY

- Close doors and windows to prevent humid outside air from coming in.
- · Vent dryer exhaust outside.
- · Fix plumbing leaks.
- Move household plants with wet soil and moisture producing leaves outside.
- Prepare meals without boiling or simmering liquids or use an exhaust fan.
- · Consider investing in an energy efficient dehumidifier.

### **TEMPERATURE**

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- Set thermostat no lower than 78 degrees.
- · Clean indoor and outdoor coils on the equipment.
- · Keep Air Conditioner filters clean.
- Block sunlight from entering windows with shade trees, exterior blinds or awnings.
- · Consider investing in a programmable thermostat.
- Use ceiling fans or box fans to keep more comfortable with warmer thermostat settings.

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## It PaysTo Stay Informed!

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## From The Cooperative Kitchen

This month's recipe was provided by Janet R. Miller from Fort Worth. She will receive a 60 Years of Home Cooking Cookbook, compliments of TCEC.



## **RED VELVET CAKE**

··· INGREDIENTS

4/2 Cup of Shortening 1 1/2 Cups of Sugar

2 Eggs

2 Ounces of Red Food Coloring

2 Table spoons of Cocon

2 1/4 Cups of Plain Flour

1 Scant Teaspoon of Salt

1 Teaspoon of Vanilla

1 Teaspoon of Soda

1 Cup of Buttermilk

1 Tablespoon Vinegar

1 Tablespoon Butter Flavoring (Optional)

Cream together shortening, sugar and eggs. Make a paste with coloring and cocoa. Add to the mixture. Add salt and flour with buttermilk and vanilla. As you mix, alternately add soda and vinegar, (Do not beat hard, just blend).

Bake in two greased & floured 8 inch cake pans for 30 minutes at 350 degrees. If desired you may split layers

## CREAM CHEESE FROSTING

### ··· INGREDIENTS ···

1/2 Cup (1 Stick) Softened Butter

1 Pound (4 Cups) Confectioners Sugar

8 Ounce Package Cream Cheese (Softened)

1 Tablespoon Milk

1 Teaspoon Pure Vanilla

Note: Do not use light cream cheese or butter substitute. Do not use margarine in place of butter.

In a medium bowl, cream together butter and cream cheese until smooth, add sugar, milk and vanilla. Set mixer on high speed and beat until smooth. (Normally 30 to 60 seconds.) Thin to ice cake smooth, use full strength for piping borders. Makes 2 3/4 cups of frosting.

800692982



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## TRI-COUNTY Electric Cooperative, Inc.

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## **Cooling Cost!**

Complain About It, or Do Something About It! The Decision is Yours.

Effective Ways to Reduce Cooling Cost .....

The cold winter chill will soon be replaced by hot summer temperatures. It's time for every property owner to decide if they want to suffer through another summer with inadequate cooling equipment, or make the commitment to do something about it. By talking with a Heating, Ventilation and Air Conditioning (HVAC) professional, you can begin making plans to improve your home's comfort and reduce operating cost.

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Over the years, properties change with respect to thermal efficiency. In some instances, we have improved thermal efficiency by replacing windows, adding storm doors or increasing the amount of attic insulation. At the same time, some of us have increased the square footage of our property with a room addition. After the addition, that old air-conditioning unit is just not large enough to get the job done when the outdoor air temperature hits the triple digit mark. When talking with your HVAC contractor, it's important to look at the whole picture. It's always more efficient to improve the thermal efficiency of the structure rather than increasing the size of your equipment. Attic insulation and ventilation are important and should be maintained at the recommended levels.

### RECOMMENDED INSULATION VALUES

For the Dallas - Ft. Worth area based on an electric cost of 8 cents per kWh

Walls: R-22 Ceiling: R-38

Adjusting the R-Value of attic insulation is extremely cost efficient. It's cheaper to pay a one time charge to upgrade insulation than the ongoing cost to remove heat from the living area by running your air conditioner. If your unit is having trouble holding the room temperature on hot days, added insulation may correct that problem. Unlike walls, most attics offer sufficient access for insulating crews to blow in additional insulation. Inspect your attic to determine the present R-value. If it is well below the recommended levels you need to make a correction.

5602100001

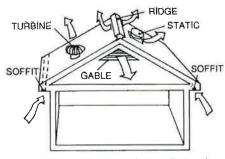
In addition to insulation, it is very important to have adequate attic

ventilation. Without proper ventilation, excessive moisture can build up and reduce the effectiveness of insulation. Have you ever used a damp towel to remove a hot pan from the oven? If so you probably still remember how quickly the heat transferred from the pan through the towel and into your hands. Damp materials transfer heat rather quickly and can cause other structural problems.

Proper ventilation prevents dampness

and also provides a pathway for heat to escape during the summer. Vents are typically located on the ends of the house or under eaves. They should be clean and free of debris. To make sure you have adequate ventilation, measure the attic floor space and determine the total area in square feet. (length times width). You should allow a minimum of one square foot of ventilation for each 150 square feet of attic area. Take note of the CFM rating of each vent used on your home to determine if adequate ventilation is being

provided. If necessary, note the type of vents used on your home and compare them to similar units at the local home improvement center. Information off the boxes of the new vents will allow you to make the necessary calculations.



Attic ventilation options at a glance. Remember 1 square foot of ventilation per 150 square foot of attic area.

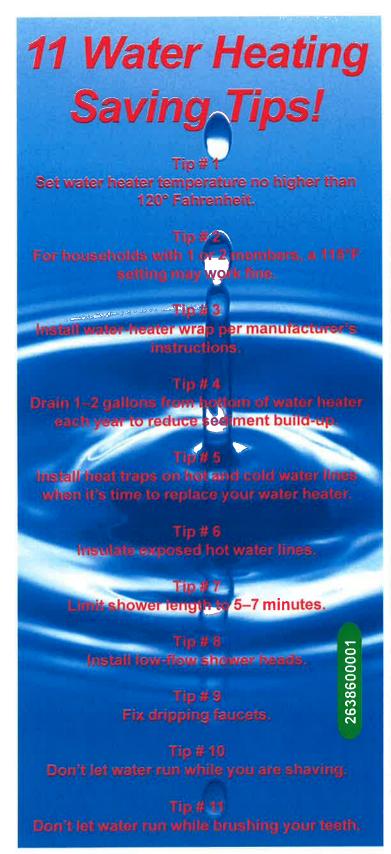
800598690

If your air conditioning unit is celebrating its

10th or better birthday, it would be appropriate to start budgeting for its replacement. Equipment efficiency ratings are graded by SEER (Seasonal Energy Efficiency Ratio). The higher the number the less costly to operate the equipment. Ratings available on the market range from a federally mandated minimum of 13 SEER to a market high of 21 SEER. Unfortunately, the purchase cost of the equipment will normally increase with the efficiency rating. Equipment sizing is commonly expressed in Tons. It's important to know that 1 Ton is equal to 12,000 BTU's. When comparing bids, make sure to consider equipment size, operating efficiency, warranty and price before making a decision.

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800612901



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## From The Cooperative Kitchen

This month's recipe was provided by Margaret Weddle from Azle. She will receive a 60 Years of Home Cooking Cookbook, compliments of TCEC.





· · · Ingredients · · ·

2 - Cups of pecans

1 - Slab of chocolate candy making bark

1 - 16 oz. Package of chocolate chips

1 - Bar German Chocolate

Place ingredients in a slow cooker (Crock Pot) in the order listed above. Set temperature on low and cover with lid and allow to cook for two hours. Stir and drop by spoonfuls on wax paper. This fudge sets up quickly.

Store fudge in a container with a cover.

White chocolate candy making bark and white chocolate chips (two 16 oz. packages) may be used. Be certain to eliminate the German Chocolate Bar. You may also like to add dried cranberries for color and flavor.

Fresh fudge and close friends always make a great combination so remember to share.

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## TRI-COUNTY Electric Cooperative, Inc.

" A Commitment to Service and Savings "



# Thomas Edison Demonstrates The First Incandescent Light Bulb on New Year's Eve Year 1879

Thomas Edison's incandescent light bulb is quite possibly one of the oldest electric technologies still sold in stores today. The technology in traditional incandescent bulbs is more than a century old. Such bulbs waste most of the electricity that feeds them, turning it into heat. It was on New Year's Eve in 1879 that Thomas Edison first demonstrated his newfangled incandescent light bulb to the public.



To encourage energy efficiency, Congress passed a law in 2007 mandating that bulbs producing 100 watts worth of light meet certain efficiency goals, starting in 2012. The same rule will apply to bulbs 40 watts and above in 2014. Since January, California

has already banned stores from restocking 100-watt incandescent bulbs.

Creating good alternatives to the light bulb has been more difficult than expected, especially for 100-watt bulbs. Part of the problem is that the new bulbs have to fit into lamps and ceiling fixtures designed for older technology.

Compact fluorescent are the most obvious replacement, but they contain a small amount of toxic mercury vapor, which is released if they break.

Some applications for the old style incandescent bulb will be hard to replace. One such application is the easy bake oven. This may be a good reason to stock up when you can. This is an example of how the bulbs heat is sometimes more important than the light. 100 watt bulbs have kept pipes from freezing in the cold winter, kept young chicks warm in the hen house, and countless other applications. The new lighting technologies produce the light without the warmth.

LEDs are efficient, durable and produced in great quantities, but they are expensive. An LED bulb can contain a dozen light-emitting diodes, or tiny semiconductor chips, which cost about \$1 each.



The big problem with LEDs is that although they don't

produce as much heat as incandescent bulbs, the heat they do create shortens the life-span and reduces the efficiency of the chips.

800653332

The most powerful pear-shaped LED bulb in stores today produces light equivalent to a 60-watt bulb. Osram Sylvania, a unit of Germany's Siemens AG, said it has overcome the heat problem and will be showing a pear-shaped 100-watt-equivalent LED bulb very soon. Lighting Sciences Group Corp., based in Satellite Beach, Fla., will show several 100-watt-equivalent prototypes, including some that solve the heat problem by using microscopic devices that move air over the chips.

Producing more lumens per watt of power consumption is the ultimate goal for the engineers designing new lighting technologies. Making sure the product is reliable, affordable and environmentally correct, is what makes the project so difficult.

800662746

## Summer Time Fun and Safety Tips

Protecting yourself from sunburn may be the first safety precaution you

think of when the summer heats up, and it's important! But it's also important to take precautions when you mix sunshine and electricity.

Backyard swimming pools, community pools and area lakes provide cool relief from the summer sun but require some special safety considerations. To ensure the safety of your friends and family, have a professional check pool lighting and pumping systems. Check overhead clearance from power lines when using pool skimmers and related equipment. Keep electric radios and CD players clear of the pool area. Test ground fault circuit interrupters around the pool or hot tub area to make sure they work properly. Docks on area lakes should have the wiring inspected to make sure everything is in good order.



Cookouts are a popular summertime activity, too. Electric grills are convenient for outdoor cooking and are completely safe when used correctly. Be sure your grill, especially the electric cord, is in good repair. Plug the grill into an outlet protected by a ground fault circuit interrupter. Keep the grill clean to prevent unwanted grease fires. Never use a grill under a combustible covered porch or enclosed area. Make sure the ground is level

and the grill stable. Keep young children at a distance to avoid burns.

800637705

Yard work is part of the season and electricity certainly makes summertime chores easier. Check the extension cords for damage and make sure that you use a three wire cord when using tools that have a three wire system. Never remove the ground prong to make an extension cord or tool work. An ungrounded hedge trimmer can be dangerous if proper grounding is not used. Make a thorough inspection of all electric tools, especially cords and casings. When planting trees, make sure you know the location of all underground utilities.

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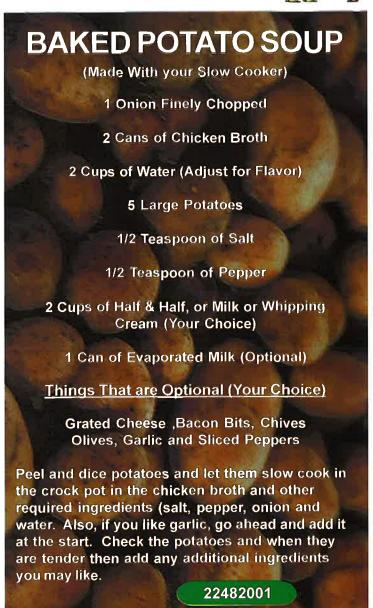
Play it safe under the sun this summer. Enjoy the many conveniences electricity provides but be sure to respect and handle it properly. **And don't forget the sunscreen!** 

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## From The Cooperative Kitchen

This month's recipe was provided by Ofelia, Cervantes from Granbury. She will receive a 60 Years of Home Cooking Cookbook, compliments of TCEC.





Central Headquarters Office (817) 444-3201 or 1-(800)-367-8232 Southwest District Office (817) 279-7010 or (817) 279-7011 Northeast District Office (817) 431-1541 B-K District Office (940) 888-3441 Internet: www.TCECTEXAS.COM Pay By Phone: 817-444-7617



## TRI-COUNTY Electric Cooperative, Inc.

" A Commitment to Service and Savings "



## The Area Is Getting a Little Dusty!

Pond and lake levels are dropping as temperatures continue to rise and rainfall is almost non existent.

The air conditioning systems are running most of the time as North Central Texas is setting a pace for one of the hottest and driest summers in recorded history. Live stock ponds are getting dangerously low along with area lakes. Hay for livestock is hard to find and very expensive when you do find it. A well loved meteorologist, Mr. Harold Taft, proclaimed that you fix a drought problem with a flood and a flooding problem with a drought. That would seem the Texas way of doing things so we patiently wait for the rain to return and the lakes and tanks to refill.

In the mean time, it's important for everyone to do what they can to conserve water. Upgrade shower heads with newer low flow heads that use less than two gallons per minute of water. You can quickly and inexpensively update sink faucets with low flow faucet aerators that will reduce water use to 1.5 gallons per minute.

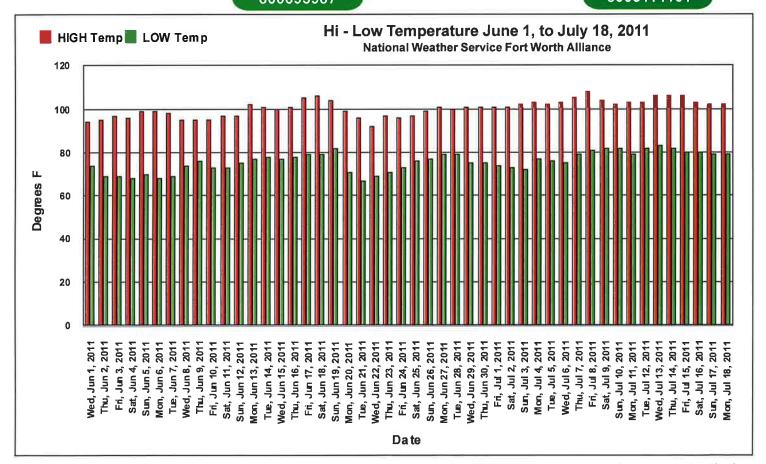
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If you have an older bathroom with toilets using three gallons of water per flush, consider upgrading to the newer High-Efficiency Toilet (HET). Using less water per flush can result in substantial water savings and reduce waste water processing.

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Fresh water is a necessity for survival and we all need to do our part to conserve until rains return and replenish our lakes and ponds. Be cautious of animals looking for water in suburban areas. When things get dry that sprinkling system or backyard pool looks very inviting for animals in dire need of water.

8005114101



## Your Thermostat Is The Best

Tool For Cost Reduction



The thermostat on the wall of your home or business is one of the quickest ways to lower electric air-conditioning costs. For every degree of increase in temperature your operating cost can be reduced by as much as 3 percent. Make sure your thermostat is level and tightly mounted to the wall. A mechanical thermostat that is out of plumb will cause inaccurate operation of equipment.

Remember to service the air filter on a regular basis. If the area in which you live is dusty, it may need attention more frequently. Take note of the condition of the filter each time you remove it for maintenance. If you are on a monthly schedule and note that the filter is extremely dirty, you need to shorten the number of days between maintenance. Remember that during the hot summer months your unit is required to run longer to maintain the temperature. Longer run times means that the filter is seeing more cubic feet of air per day. Another condition affecting maintenance schedules is air quality. Hot dry conditions will result in more dusty conditions around the home.





Dirty coils increase operating cost and can cause serious equipment failure. Keep them clean and save!

Make sure the outdoor condensing coil is clean and free of grass and other debris. This will improve efficiency and also prevent costly equipment failures.

Inspect doors and windows to make sure they are closing properly. A missing or torn weather seal can cause increased air infiltration resulting in higher operating cost. Keep windows latched as the locking mechanism frequently results in a tighter seal. Use the dollar bill inspection around doors.

Close the dollar bill in each side and several locations around the door. If the seal is working properly you should meet firm resistance when you close the door and attempt to pull the dollar free. No resistance indicates a defective door gasket.

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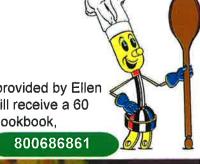
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## From The Cooperative Kitchen

This month's recipe was provided by Ellen Driscoll from Azle. She will receive a 60 Years of Home Cooking Cookbook, compliments of TCEC.



## **Mexican Meatloaf**

## · Ingredients ···

2 - Lbs. Of Lean Ground Beef 1- Lb. Of Owens Hot Sausage

1 - Small Onion diced, or two tablespoons of Minced Dried Onion

2 - Large Eggs

1 - Cup of Dry Bread Crumbs, Plain

1 - Cup of Picante Sauce, Use More Later to Put on Top of Meat

1/2 - Cup of Sliced Jalanenos, Add More on Top Later

1/2 - Cup of Water or Jalapeno Juice

1 - Tablespoon (Pizza) Pepper Seasoning

2 - Cups Shredded Mexican or Cheddar Cheese, Dash of Salt, Pepper and Garlle Salt Desired.

Spray crock Pot with Pam or other non-stick product. Mix all Ingredients except cheese and peppers reserved for topping.

Mix the ingredients right'in the crock pot

Add more picante sauce and jalapeno slices on top and set crock on low temperature if you have all day to cook or set on high for cook time around 4 hours.

Add cheese on top last five minutes or so of cooking. Serve with chips, rice and refried beans and you have a meal for a large family.



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## Autumn Came on September 23 And With It Comes Shorter Days and Cooler Weather

Autumn marks that point in the year when the hours of daylight and darkness are equal. From this day forward the number of hours of daylight will grow shorter until we recognize winter which will mark the shortest number of daylight hours for the year. Having just survived one of the hottest summers on record, it is difficult to start thinking about preparing for the winter heating season. working properly. An open fireplace damper will allow thousands of BTU's of heat to escape from the home. You would never consider leaving a window wide open on a cold day, but a fireplace with an

Preparing the home now can improve comfort, maintain safety and help reduce operating costs. Having a professional come in and check that furnace can prevent untimely break downs which usually occur on the coldest of holiday mornings. An inspection of electrical connections, relays and heating elements can prevent untimely break downs and possible burn outs.

Your gas furnace should be checked to make sure that the heat exchanger is air tight and that exhaust and fresh air vents are clear and properly installed. A bad heat exchanger or exhaust vent can allow deadly carbon monoxide to enter the home. If an open flame heater is used in your home, a carbon monoxide detector should also be in your home and working.



Carbon Monoxide detectors monitor the air in your home constantly checking for traces of carbon monoxide gas. If the deadly gas is detected an alarm sounds warning your family of the danger.

Inspect doors and windows to make sure that they are properly caulked and that all the seals are in place and

working properly. Keeping the heat indoors helps reduce operating time on the furnace saving you money.

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Be prepared to cover exposed water pipes outside the home. Make sure that insulating materials are in good condition and if a heat source is required to prevent freezing, consider using heat tape rather than high wattage light bulbs or space heaters. Remember you must keep insulating materials dry for them to be effective.

800693138

If your home has a fireplace make sure the damper is

working properly. An open fireplace damper will allow thousands of BTU's of heat to escape from the home. You would never consider leaving a window wide open on a cold day, but a fireplace with an open damper can actually allow more heat to escape than a open window. Warm air wants to rise and a fireplace chimney provides that vertical escape path for warm air to rush out. Visually inspect the chimney to make sure there is no damage and



Remember for every cubic foot of smoke that travels up a chimney must be replaced with fresh outside air. The replacement air will be entering the home at outside air temperatures. In many cases the fireplace can actually remove more heat from the home than it contributes. Turn the central system off when burning a fire. If the home gets too cold, it's time to shut the fire down, clean out the embers, close the damper and then restart the central heating unit.

800656530

that no animals have built a nest which might obstruct the evacuation of combustion gasses. A screened rain cap is a good investment. It will keep both water and animals out of the chimney and prevent damage to damper components. Always remove hot ashes after a fire so the damper can be closed to prevent heat loss. Glass fireplace doors help slow the loss of warm air but are not as effective as a closed damper.

Remember to take advantage of the cooler autumn temperatures and make your home ready for the winter heating season. A few hours spent working on your home will pay off in lower utility bills and improve the comfort and safety for your family.

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October 2011 Member Information Bulletin

## **Save On Water Heating Cost**

Set water heating temperature no higher than 120 degrees.

For hour sholds with only 1 or 2 members, a setting of 115 degrees will work fine.

Install a water heater insulating blanket per manufacturers recommendation. A rebate of \$15.00 is available for each electric heater blanket through Tri-County Electric Cooperative.

Drain 1 to 2 gallons of water from bottom of water heater each year to reduce sediment build up.

Insulate exposed hot water lines. A rebate of \$10.00 per electric water heater is available through Tri-County Electric Cooperative.

Limit shower lengths to 5 to 7 minutes.

Repair leaking water faucets.

Install low flow shower heads, low flow is under 2 gallons per minute. A rebate of \$20.00 per shower head on homes with electric water heating is available through Tri-County Electric Cooperative.

Don't et water run while brushing your teeth.

go to the "member Services" tab, and Select the "Energy Audit" tab.

## HAPPY HALLOWEEN

Play It Safe
On Halloween
Night By
Following A
Few Simple
Rules That
Will Make
Halloween
Fun For
Everyone!



- I. Wear costumes that are flame retardant.
- II. Make sure visibility is unrestricted by masks.
- III. Use high visibility colors or reflective tape.
- IV. Make sure that all trick-or-treaters have a good flashlight to carry with them.
- V. Watch out for animals, a dog fenced in a back yard can be dangerous, never climb fences or enter backyards without permission.
- VI. Remind kids that candy should not be eaten until each piece is inspected at home.

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